

Bituminous mixtures - Test methods - Part 37: Hot sand test for the adhesivity of binder on pre-coated chippings for Hot-Rolled-Asphalt (HRA)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12697-37:2022 sisaldab Euroopa standardi EN 12697-37:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 12697-37:2022 consists of the English text of the European standard EN 12697-37:2022.
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English Version

**Bituminous mixtures - Test methods - Part 37: Hot sand
test for the adhesivity of binder on pre-coated chippings
for Hot-Rolled-Asphalt (HRA)**

Mélanges bitumineux - Méthodes d'essai - Partie 37 :
Essai au sable chaud pour l'adhérence du liant sur des
gravillons pré-enrobés pour Hot-Rolled Asphalt (HRA)

Asphalt - Prüfverfahren - Teil 37: Prüfung des
Haftvermögens eines Bindemittels auf vorumhülltem
Splitt für Hot-Rolled-Asphalt (HRA) mittels heißem
Sand

This European Standard was approved by CEN on 21 February 2022.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 12697-37:2022) has been prepared by Technical Committee CEN/TC 227 “Road materials”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2022, and conflicting national standards shall be withdrawn at the latest by October 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12697-37:2003.

The main changes compared to the previous edition are listed below:

- the title no longer refers to hot mix asphalt;
- the title completed with “Hot-Rolled Asphalt”. The abbreviation “HRA” placed within brackets;
- general editorial update according to current standard template;
- European Foreword, deletion of paragraph “The applicability of this European Standard is described in prEN 13108-4”;
- deletion of reference to EN 13043. Correction of titles for EN 12697-27 and EN 12697-28;
- Clause 3, deletion of terms and definitions 3.1 to 3.9. Terms and definitions given in EN 12697-27 and EN 12697-28 are applied in relevant paragraphs;
- Clause 4, revision of NOTE to normal text;
- Clause 5, completion of left column heading in Table 1 to read “Test sieve aperture size”;
- 6.2, replacement of “accuracy” with “maximum permissible error”;
- 6.4, replacement of “accuracy” with “maximum permissible error”;
- 6.5, replacement of sieve “350 mm” with sieve “300 mm”;
- Clause 7, alteration of title to read “Sampling and preparation of test portions”.
- 7.1, alteration of title to read “Sampling”. Clarification of paragraph;
- 7.2, alteration of title to read “Preparation of test portion”. Clarification of paragraph;
- 7.2, reference to EN 12697-28:2000, 4.5 deleted;
- 7.3 to 7.12, renumbered to 8.1 to 8.10;
- 7.13, deletion of paragraph. NOTE 1 and NOTE 2 amended to normal text and placed under 8.10;
- Clause 8, alteration of title to read “Procedure”. Former Clause 8 renumbered to Clause 9;
- 8.1 (7.3 in previous version), correction of description of sieve sizes. Unit changed to “mm”;

- 8.6 (7.8 in previous version), deletion of superfluous text “ensuring that the sand temperature is not less than 100 °C”;
- 8.7 (7.9 in previous version), correction of description of sieve sizes. Unit changed to “mm”;
- 8.10 (7.13 in previous version), NOTE 1 and NOTE 2 amended to normal text”;
- Clause 9 (Clause 8 in previous version), alteration of title to read “Calculation and expression of results”;
- 9.1 (8.1 in previous version), equations adjusted and completed with keys and numbered;
- 9.2, (8.2 in previous version), equations adjusted and completed with keys and numbered;
- Clause 10 (Clause 9 in previous version), revision of the order and data to be reported;
- Clause 11, renumbered from “Clause 10” to “Clause 11”;
- Bibliography, deletion of references to prEN 13108-4 and prEN 12697-38.

A list of all parts in the EN 12697 series can be found on the CEN website.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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1 Scope

This document describes a hot sand test method for determining the condition of the binder on coated chippings for use with hot rolled asphalt (HRA) surface course.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 933-2, *Tests for geometrical properties of aggregates - Part 2: Determination of particle size distribution - Test sieves, nominal size of apertures*

EN 933-6, *Tests for geometrical properties of aggregates - Part 6: Assessment of surface characteristics - Flow coefficient of aggregates*

EN 12697-27, *Bituminous mixtures - Test methods - Part 27: Sampling*

EN 12697-28, *Bituminous mixtures - Test methods - Part 28: Preparation of samples for determining binder content, water content and grading*

3 Terms and definitions

There are no terms and definitions listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Principle

This test is used to ensure that coated chippings to be applied to the surface of surface course rolled asphalt have not been overheated to such an extent that their adhesion to the asphalt will be prevented. The dried coated chippings are immersed in hot sand under specified conditions and the degree of coating by the sand assessed both by weighing and by visual inspection.

The test should be carried out sufficiently in advance of constructing the asphalt surface course to enable fresh supplies of chippings to be obtained if necessary.

5 Materials

5.1 Clean dry silica sand, in accordance with the grading given in Table 1 and having a flow coefficient (FCF), which shall be measured in accordance with EN 933-6, of not less than 27 s.

The sands used in the hot sand test should be changed after testing approximately 20 samples or earlier if obviously contaminated.

5.2 Clean dry silica grit, in accordance with the grading given in Table 1 and having a flow coefficient (FCF), which shall be measured in accordance with EN 933-6, of not less than 27 s.